

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 0426

Date of writing Report 24.6.53

When handed in at Local Office 19

Received at London Office

Port of GRONINGEN

No. in Reg. Book.

Survey held at WATERHUIZEN

Date, First Survey 4.2.53

Last Survey

20.6.1953

Single
on the Twin
Triple
Quadruple

Screw vessel MV "BIDURI"

Number of Visits 18

Tons

Gross 569.39

Net 433.04

Built at WATERHUIZEN

By whom built N.V. SCHM. WATERHUIZEN

Yard No. 216

When built 1953

Engines made at AMSTERDAM

By whom made N.V. "WERKSPOR"

Engine No. 1473

When made 1953

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 500

Owners Republic Indonesia

Port belonging to

DJAKARTA

M.N. Power as per Rule 100

Is Refrigerating Machinery fitted for cargo purposes NO

Is Electric Light fitted YES

Trade for which vessel is intended OCEAN TRADE

OIL ENGINES, &c. —Type of Engines

[DIMENSIONS IN MM]

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

Ahead Firing Order in Cylinders

Span of bearings, adjacent to the crank, measured

from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Moment of inertia of flywheel (lbs. in² or Kg. cm.²)

Means of ignition

Kind of fuel used

Crank

Solid forged

Semi built

All built

dia. of journals

as per Rule

as fitted

Crank pin dia.

Crank webs

Mid. length breadth

Mid. length thickness

shrunk

Thickness parallel to axis

Thickness around eyehole

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as fitted

as per Rule

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the tube shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per Rule

as fitted

Is the after end of the liner made watertight in the

propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two liners are fitted, is the shaft lapped or protected between the liners

Is an approved Oil Gland or other appliance fitted at the after

end of tube shaft

YES If so, state type VAN DAM

Length of bearing in Stern Bush next to and supporting propeller 800

Propeller, dia. 1840

Pitch 1110

No. of blades 4

Material BRONZE

whether moveable SOLID

Total developed surface 46.2 sq. feet

Moment of inertia of propeller (lbs. in² or Kg. cm.²) 259

Method of reversing Engines

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Means of

lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

YES

Are the exhaust pipes and silencers water cooled

or lagged with non-conducting material

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

back to the engine

Cooling Water Pumps, No.

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and size

2 @ 3.5 1/4

+ 1 EMERGENCY BILGE PUMP @ 3.5 1/4

How driven

A.E.

ELECT.

Is the cooling water led to the bilges

NO

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements

Ballast Pumps, No. and size

2 @ 3.5 1/4

Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 @ 4 1/4 1 @ 6 1/4

Are two independent means arranged for circulating water through the Oil Cooler

YES

Bilge pumps, No. and size

In machinery spaces 1 @ 3"

Suctions, connected to both main bilge pumps and auxiliary

in holds, &c.

6 @ 2 1/2"

In pump room

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 @ 3"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes

YES

Are the bilge suction in the machinery spaces led from easily

accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

YES

Are all Sea Connections fitted direct on the skin of the Ship

EN. CHSTS

Are they fitted with valves or cocks

VALVES

Are they fixed

sufficiently high on the ship's side to be seen without lifting the platform plates

YES

Are the overboard discharges above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

YES

Are the blow off cocks fitted with a spigot and brass covering plate

That pipes pass through the bunkers

YES

How are they protected

YES

That pipes pass through the deep tanks

YES

Have they been tested as per Rule

YES

Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times

YES

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery

YES

Is the shaft tunnel watertight

Is it fitted with a watertight door

YES

worked from

Is a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

YES

Main Air Compressors, No.

No. of stages

diameters

stroke

driven by

Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

Small Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

What provision is made for first charging the air receivers

HAND STARTED AIR ENGINES

Scavenging Air Pumps, No.

diameter

stroke

driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

KROMHOUT 130.42

No.

STAD. E.R. TROOR. LEVEL

Position

BOAT DECK

Have the auxiliary engines been constructed under special survey

SAMOA 1272

YES, AMS. CERT. DATED 26.2.53

Is a report sent herewith

NO

AIR RECEIVERS:—Have they been made under survey... ☒ YES... State No. of report or certificate... ☒

Is each receiver, which can be isolated, fitted with a safety valve as per Rule... ☒ YES

Can the internal surfaces of the receivers be examined and cleaned... ☒ YES... Is a drain fitted at the lowest part of each receiver... ☒ YES

Injection Air Receivers, No. ☒ Cubic capacity of each... ☒ Internal diameter... ☒ thickness... ☒

Seamless, welded or riveted longitudinal joint... ☒ Material... ☒ Range of tensile strength... ☒ Working pressure... ☒ by Rules... ☒ Actual... ☒

Starting Air Receivers, No. ☒ Total cubic capacity... ☒ Internal diameter... ☒ thickness... ☒

Seamless, welded or riveted longitudinal joint... ☒ Material... ☒ Range of tensile strength... ☒ Working pressure... ☒ by Rules... ☒ Actual... ☒

IS A DONKEY BOILER FITTED... ☒ NO... If so, is a report now forwarded... ☒

Is the donkey boiler intended to be used for domestic purposes only... ☒

PLANS. Are approved plans forwarded herewith for shafting... ☒ Receivers... ☒ Separate fuel tanks... ☒

Donkey boilers... ☒ General pumping arrangements... 22-1-53... Pumping arrangements in machinery space... 11-2-53

Oil fuel burning arrangements... 17-2-53

Have Torsional Vibration characteristics been approved... ☒ YES... Date of approval... ☒

SPARE GEAR.

Has the spare gear required by the Rules been supplied... ☒ YES

State the principal additional spare gear supplied... ☒

The foregoing is a correct description, and the particulars of the installation as fitted are as approved for... *Personal vibration characteristics*... Manufacturer... *N.V. Motorenfabriek 't Hart, 't WEGHELEN, Hoogezand*

Dates of Survey while building... During progress of work in shops... 11 work See A. dan Rpt. 18713... During erection on board vessel... 1953 Feb 4-10-22; March 9-12-22 25-31; April 8-9-21 22-23; May 5; June 4-10-16-20... Total No. of visits... 2

Dates of examination of principal parts—Cylinders... ☒ Covers... ☒ Pistons... ☒ Rods... ☒ Connecting rods... ☒

Crank shaft... ☒ Flywheel shaft... ☒ Thrust shaft... ☒ Intermediate shafts... ☒ Tube shaft... ☒

Screw shaft... ☒ Propeller... ☒ Stern tube... 10-12-52... Engine seatings... 9-4-53... Engine holding down bolts... 9-4-53

Completion of fitting sea connections... 22-2-53... Completion of pumping arrangements... 15-6-53... Engines tried under working conditions... 20-6-53

Crank shaft, material... ☒ Identification mark... ☒ Flywheel shaft, material... ☒ Identification mark... ☒

Thrust shaft, material... ☒ Identification mark... ☒ Intermediate shafts, material... ☒ Identification marks... ☒

Tube shaft, material... ☒ Identification mark... ☒ Screw shaft, material... ☒ Identification mark... ☒

Identification marks on air receivers... ☒

Welded receivers, state Makers' Name... ☒

Is the flash point of the oil to be used over 150°F... ☒ YES

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with... ☒ YES

Description of fire extinguishing apparatus fitted... 3 FIREFOAMS @ 9 LTRS., 1 @ 45 LTRS., 2 L.F.D. HOSE CONNECTIONS.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo... ☒ NO... If so, have the requirements of the Rules been complied with... ☒

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with... ☒

Is this machinery duplicate of a previous case... ☒ YES... If so, state name of vessel... *BARIAN*

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

This engine and auxiliaries have been constructed and fitted under special survey in accordance with the approved plans, Society's Rules and Secretary's letter. The workmanship was found good. The machinery has been tested under full working conditions on a trial trip and found working satisfactorily. In my opinion the machinery of this vessel meets the approval of the Committee and be recorded in the Society's Register Book I-1 LMC 6-53 - OIL ENGINE - O.G.

The amount of Entry Fee... *£ 220.-*

Special... *£* : : When applied for... *24-6-1953*

Donkey Boiler Fee... *£* : : When received... *19*

Travelling Expenses (if any) *£ 9.0*

Committee's Minute... *FRIDAY 14 AUG 1953*

Assigned... *+ LMC 6, 53 Oil Eng.*

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